Title (en)

ANISOTROPIC CONSTITUTIVE PARAMETERS FOR LAUNCHING A ZENNECK SURFACE WAVE

Title (de)

ANISOTROPE, KONSTITUTIVE PARAMETER ZUM ABSCHUSS EINER ZENNECK-OBERFLÄCHENWELLE

Title (fr)

PARAMÈTRES CONSTITUTIFS ANISOTROPES DESTINÉS AU LANCEMENT D'UNE ONDE DE SURFACE DE ZENNECK

Publication

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Application

EP 20834088 A 20201209

Priority

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Abstract (en)

[origin: US2021172988A1] Various examples are provided related to anisotropic constitutive parameters (ACPs) that can be used to launch Zenneck surface waves. In one example, among others, an ACP system includes an array of ACP elements distributed over a medium such as, e.g., a terrestrial medium. The array of ACP elements can include one or more horizontal layers of radial resistive artificial anisotropic dielectric (RRAAD) elements positioned in one or more orientations over the terrestrial medium. The ACP system can include vertical lossless artificial anisotropic dielectric (VLAAD) elements distributed over the terrestrial medium in a third orientation perpendicular to the horizontal layer or layers. The ACP system can also include horizontal artificial anisotropic magnetic permeability (HAAMP) elements distributed over the terrestrial medium. The array of ACP elements can be distributed about a launching structure, which can excite the ACP system with an electromagnetic field to launch a Zenneck surface wave.

IPC 8 full level

H01Q 9/36 (2006.01); **H01Q 15/02** (2006.01); **H01Q 19/06** (2006.01); **H02J 50/00** (2016.01)

CPC (source: CN EP IL KR US)

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